

What is claimed is:

1. A drive system for a display panel having a plurality of light emitting elements, the drive system comprising:

a driver circuit for driving the display panel;

a power supply circuit for supplying a supply voltage to the driver circuit, a value of the supply voltage being regulated in accordance with a voltage control signal;

a pixel data storage circuit for storing pixel data displayed on the display panel; and

a control circuit for generating lighting instructions for the display panel based on pixel data extracted from the pixel data storage circuit at a predetermined timing and supplying the lighting instructions to the driver circuit, the control circuit also generating the voltage control signal for changing the value of the supply voltage in accordance with a lighting rate.

2. The drive system according to claim 1, wherein the control circuit calculates the lighting rate at least for each single frame of image data displayed on the display panel.

3. The drive system according to claim 1, wherein the control circuit calculates the lighting rate at least for each single line of image data displayed on the display panel.

4. The drive system according to claim 1, wherein the light emitting elements are organic EL light emitting elements.

5. The drive system according to claim 1, wherein the lighting rate is a percentage of the light emitting elements to be lit in accordance with the lighting instructions.

6. The drive system according to claim 4, wherein the organic EL elements are arranged in a matrix having a plurality of rows and a plurality of columns, the drive circuit includes an anode driver IC for a plurality of columns of organic EL elements and a cathode driver IC for a plurality of rows of organic EL elements, and the regulated supply voltage is supplied to the anode driver IC.

7. The drive system according to claim 1, wherein the control circuit generates the voltage control signal for increasing the value of the supply voltage when the lighting rate increases, and for decreasing the value of the supply voltage when the lighting rate decreases.

8. The drive system according to claim 1, wherein the control circuit generates the voltage control signal for regulating the value of the supply voltage when the lighting rate exceeds a predetermined value.

9. An apparatus for driving a display panel having a plurality of light emitting elements, the apparatus comprising:

drive means for driving the display panel;

means for supplying a supply voltage to the drive means, a value of the supply voltage being regulated in accordance with a voltage control signal;

storage means for storing pixel data displayed on the display panel; and

control means for generating lighting instructions for the display panel based on pixel data extracted from the storage means at a predetermined timing and supplying the lighting

instructions to the drive means, the control means also generating the voltage control signal for regulating the value of the supply voltage in accordance with a lighting rate.

10. The apparatus according to claim 9, wherein the control means calculates the lighting rate at least for each single frame of image data displayed on the display panel.

11. The apparatus according to claim 9, wherein the control means calculates the lighting rate at least for each single line of image data displayed on the display panel.

12. The apparatus according to claim 9, wherein the light emitting elements are organic EL light emitting elements.

13. The apparatus according to claim 9, wherein the lighting rate is a percentage of the light emitting elements to be lit in accordance with the lighting instructions.

14. The apparatus according to claim 12, wherein the organic EL elements are arranged in a matrix having a plurality of rows and a plurality of columns, the drive means includes an anode driver means for a plurality of columns of organic EL elements and a cathode driver means for a plurality of rows of organic EL elements, and the regulated supply voltage is supplied to the anode driver means.

15. The apparatus according to claim 9, wherein the control means generates the voltage control signal for increasing the value of the supply voltage when the lighting rate increases, and for decreasing the value of the supply voltage when the lighting rate decreases.

16. The apparatus according to claim 9, wherein the control

means generates the voltage control signal for regulating the value of the supply voltage when the lighting rate exceeds a predetermined value.

17. A method of driving a display panel having a plurality of light emitting elements based on a supply voltage supplied from a supply circuit, the method comprising:

calculating a lighting rate of a predetermined group of light emitting elements when lighting instructions are given to the predetermined group of light emitting elements; and

determining a value of the supply voltage based on the lighting rate.

18. The method according to claim 17, wherein the predetermined group of light emitting elements corresponds to one frame of image data displayed on the display panel.

19. The method according to claim 17, wherein the predetermined group of light emitting elements corresponds to one horizontal line of image data displayed on the display panel.

20. The method according to claim 17, wherein the light emitting elements are organic EL light emitting elements.

21. The method according to claim 17, wherein the value of the supply voltage is increased when the lighting rate increases, and is decreased when the lighting rate decreases.